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07/965,305	10/23/92	HEINZ	

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EXAMINER

DVORAK, L

FORM 1/1116

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ART UNIT

PAPER NUMBER

3302

DATE MAILED:

11/16/93

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined

Responsive to communication filed on 9/14/93  This action is made final.

A shortened statutory period for response to this action is set to expire three month(s), 0 days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1.  Notice of References Cited by Examiner, PTO-892.
2.  Notice re Patent Drawing, PTO-948.
3.  Notice of Art Cited by Applicant, PTO-1449.
4.  Notice of Informal Patent Application, Form PTO-152.
5.  Information on How to Effect Drawing Changes, PTO-1474.
6.

Part II SUMMARY OF ACTION

1.  Claims 1-16 are pending in the application.  
Of the above, claims \_\_\_\_\_ are withdrawn from consideration.
2.  Claims \_\_\_\_\_ have been cancelled.
3.  Claims \_\_\_\_\_ are allowed.
4.  Claims 1, 2, 4, 1e, 10 are rejected.
5.  Claims 3, 5, 7-9, 11-16 are objected to.
6.  Claims \_\_\_\_\_ are subject to restriction or election requirement.
7.  This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8.  Formal drawings are required in response to this Office action.
9.  The corrected or substitute drawings have been received on 10/23/92. Under 37 C.F.R. 1.84 these drawings are  acceptable.  not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10.  The proposed additional or substitute sheet(s) of drawings, filed on 10/23/92, has (have) been  approved by the examiner.  disapproved by the examiner (see explanation).
11.  The proposed drawing correction, filed on 10/23/92, has been  approved.  disapproved (see explanation).
12.  Acknowledgment is made of the claim for priority under U.S.C. 119. The certified copy has  been received.  not been received.  been filed in parent application, serial no. 07/965,305; filed on 10/23/92.
13.  Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14.  Other

EXAMINER'S ACTION

Art Unit 3302

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1, 2, 4, and 6 are rejected under 35 U.S.C. § 103 as being unpatentable over Stabholz in view of Bonin, Jr. et al.

Stabholz discloses a back brace apparatus comprising a brace body [11] adapted to be wrapped around the trunk of a patient and having two ends; means [note the teaching of a buckle at column 8, line 11] at the end of each brace segment for allowing the two ends to be detachably connected together around the patient's trunk; and means [14] for tightening the brace. Stabholz does not disclose his tightening means as automatic including a cable, a motor, and means for controlling the motor, but rather discloses a mechanical ratchet drive mechanism [21] in which a

Art Unit 3302

lever rotates a shaft thereby winding the belt about the shaft and allowing for selective tensioning of the belt about the wearer. Initially, applicant should note that it is well established that replacement of a manual operation with an automatic operation is a design consideration within the skill of the art. In re Venner, 262 F.2d 91, 120 USPQ 192 (CCPA 1955). Bonin, Jr. et al shows the conventional use in the art of a motor and motor control means for applying a desired tension in a cable to a body part. It would have been obvious to one having ordinary skill in the art to replace the manual mechanical means for tightening the belt of Stabholz with a cable interconnecting the belt segments and including automatic means such as a motor and controller as shown by Bonin, Jr. et al in order to provide easier adjustment for the user of the desired tightness.

Regarding claim 4, note the cable runs through pulley 45 of Bonin, Jr. et al which would be mounted on one of the brace segments.

Regarding claim 6, note that Bonin, Jr. et al teaches such features as timers, means for storing data, tension control settings, and means for outputting the data are conventional in automatic control means of tension applying systems, thereby obviating their addition to Stabholz with the automatic tightening means.

Art Unit 3302

Claim 10 is rejected under 35 U.S.C. § 103 as being unpatentable over Stabholz in view of Bonin, Jr. et al as applied to claim 1 above, and further in view of Palmer.

Stabholz/Bonin, Jr. et al discloses the instant invention as discussed, supra. Stabholz discloses a buckle as the connecting means between belt segment ends. Palmer also discloses an electromechanical belt and shows the conventional use of hook and loop fasteners [76, 78] as connecting means. It would have been obvious to one having ordinary skill in the art to replace the buckle of Stabholz with hook and loop fasteners as both are well known and used means for connecting in the art.

Claims 3, 5, 7-9, and 11-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's arguments filed 14 September 1993 have been fully considered but they are not deemed to be persuasive.

Applicant argues that Stabholz does not show two separate segments as claimed. Examiner contends that Stabholz can be viewed as having two segments, one on either side of the ratchet drive mechanism [21]. Not notwithstanding this, however, even if Stabholz is viewed as only having a single brace segment, there

Art Unit 3302

is no patentable distinction in having one or two brace segments. That is, one-piece construction or two separate elements fastened together, is a design consideration within the skill of the art.

In re Kohno, 391 F.2d 959, 157 USPQ 275 (CCPA 1968); In re Larson, 340 F.2d 965, 144 USPQ 347 (CCPA 1965). In both the instant invention and in Stabholz, a belt is designed with means for controlling the degree of tension applied to the wearer through tightening of the belt. The issue is whether or not the tensioning means themselves are patentable. Examiner maintains that it would have been obvious to one having ordinary skill in the art to replace the manual ratchet means of Stabholz with automatic means such as a motorized cable tensioning means because replacement of a manual operation with an automatic operation is a design consideration within the skill of the art [In re Venner, 262 F.2d 91, 120 USPQ 192 (CCPA 1955)] and because Bonin, Jr. et al shows the conventional use in the art of a motor and motor control means for applying a desired tension in a cable to a body part. In response to Applicant's argument that Bonin Jr. et al cannot be combined with Stabholz, the test for obviousness is not whether the features of one reference may be bodily incorporated into the other to produce the claimed subject matter but simply what the combination of references makes obvious to one of ordinary skill in the pertinent art.

Applicant further argues that Palmer is a posture training

Art Unit 3302

device which fails to cure any of the insufficiencies of the primary references. It should be noted that Palmer is used only as a teaching that hook and loop fasteners are well known in the art of electromechanical belts and in no way attempts to add to the substance of the tensioning means of the instant invention.

Applicant's amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication should be directed to Linda C.M. Dvorak at telephone number (703) 308-0858.

Linda C.M. Dvorak  
November 12, 1993

  
RICHARD J. APLEY  
SPE  
ART UNIT 332